WHAT IS CLAIMED IS:

1. An apparatus comprising:

a circuit having first, second and third circuit portions, said first and third circuit portions each including at least one semiconductor circuit component, and said second circuit portion including at least one non-semiconductor circuit component and being free of semiconductor circuit components, said second circuit portion having first and second electrically conductive parts, and said third circuit portion having third and fourth electrically conductive parts which are respectively coupled to said first and second electrically conductive parts by respective thermo-formed bonds;

a first substrate with said first and second circuit portions disposed adjacent one side thereof, said first substrate having a semiconductor portion which has each said semiconductor circuit component of said first circuit portion therein; and

a second substrate with said third circuit portion disposed adjacent one side thereof, said second substrate being physically separate from said first substrate and being oriented so that said one side thereof faces said one side of said first substrate, and said second substrate having a semiconductor portion which has each said semiconductor circuit component of said third circuit portion therein.

2. An apparatus according to Claim 1,

wherein said first circuit portion has one said circuit component thereof which is implemented in a first semiconductor technology; and

wherein said third circuit portion has one said circuit component thereof which is implemented in a second semiconductor technology different from said first semiconductor technology.

3. An apparatus according to Claim 1,

wherein said circuit includes a fourth circuit portion which includes at least one semiconductor circuit component, said second circuit portion having fifth and sixth electrically conductive parts, and said fourth circuit portion having seventh and eight electrically conductive parts which are respectively coupled to said fifth and sixth electrically conductive parts by respective thermo-formed bonds; and

including a third substrate with said fourth circuit portion disposed adjacent one side thereof, said third substrate being physically separate from said first and second substrates and being oriented so that said one side thereof faces said one side of said first substrate, and said third substrate having a semiconductor portion which has each said semiconductor circuit component of said fourth circuit portion therein.

4. An apparatus according to Claim 3,

wherein said third circuit portion has one said circuit component thereof which is implemented in a first semiconductor technology; and

wherein said fourth circuit portion has one said circuit component thereof which is implemented in a

second semiconductor technology different from said first semiconductor technology.

5. An apparatus according to Claim 4, wherein said first circuit portion has one said circuit component thereof which is implemented in a third semiconductor technology different from each of said first and second semiconductor technologies.

6. An apparatus according to Claim 1, wherein said thermo-formed bonds are each one of a thermosonic bond and a thermocompression bond.

7. An apparatus according to Claim 6,

wherein said first and second electrically conductive parts are each a contact; and

wherein said third and fourth electrically conductive parts are each a bump.

8. An apparatus according to Claim 6, wherein each of said electrically conductive parts is made of gold.

9. An apparatus according to Claim 1, wherein said third circuit portion has one said circuit component thereof with a fabrication yield which is lower than a fabrication yield of each said circuit component of said first circuit portion.

10. An apparatus according to Claim 1, wherein said third circuit portion has therein a single said circuit component.

11. An apparatus according to Claim 10, wherein said single circuit component of said third circuit portion is a transistor.

12. An apparatus according to Claim 1, wherein said first substrate is a semiconductor substrate.

13. An apparatus according to Claim 1,

wherein said first substrate includes one of silicon and gallium arsenide; and

wherein said second substrate includes gallium arsenide.

14. An apparatus according to Claim 1, wherein said circuit is a microwave circuit.

15. A method comprising:

providing a first substrate which has a semiconductor portion;

forming first and second circuit portions adjacent one side of said first substrate, said first circuit portion including at least one semiconductor circuit component, and said second circuit portion including at least one non-semiconductor circuit component and being free of semiconductor circuit components, said second circuit portion having first and second electrically conductive parts, and said semiconductor portion of said first substrate having therein each said semiconductor circuit component of said first circuit portion;

providing a second substrate which is physically separate from said first substrate and which has a semiconductor portion;

forming a third circuit portion adjacent one side of said second substrate, said third circuit portion including at least one semiconductor circuit component, said third circuit portion having third and fourth electrically conductive parts, and said semiconductor portion of said second substrate having therein each said semiconductor circuit component of said third circuit portion;

orienting said second substrate relative to said first substrate so that said one side thereof faces said one side of said first substrate and said first and second electrically conductive parts are respectively engaging said third and fourth electrically conductive parts; and

creating a thermo-formed bond between said first and third electrically conductive parts and a further thermo-formed bond between said second and fourth electrically conductive parts, said first, second and third circuit portions being respective portions of a single circuit.

16. A method according to Claim 15,

wherein said forming of said first circuit portion includes implementing one said circuit component thereof in a first semiconductor technology; and

wherein said forming of said third circuit portion includes implementing one said circuit component thereof in a second semiconductor technology different from said first semiconductor technology.

17. A method according to Claim 15,

wherein said forming of said second circuit portion includes forming fifth and sixth electrically conductive parts;

including providing a third substrate which is physically separate from said first and second substrates and which has a semiconductor portion;

including forming a fourth circuit portion adjacent one side of said third substrate, said fourth circuit portion having at least one semiconductor circuit component and having seventh and eighth electrically conductive parts, and said semiconductor portion of said third substrate having therein each said semiconductor circuit component of said fourth circuit portion;

including orienting said third substrate relative to said first substrate so that said one side thereof faces said one side of said first substrate and said fifth and

sixth electrically conductive parts are respectively engaging said seventh and eighth electrically conductive parts; and

creating a thermo-formed bond between said fifth and seventh electrically conductive parts and a further thermo-formed bond between said sixth and eighth electrically conductive parts, said fourth circuit portion being a portion of said single circuit.

18. A method according to Claim 17,

wherein said forming of said third circuit portion includes implementing one said circuit component thereof in a first semiconductor technology; and

wherein said forming of said fourth circuit portion includes implementing one said circuit component thereof in a second semiconductor technology different from said first semiconductor technology.

19. A method according to Claim 18, wherein said forming of said first circuit portion includes implementing one said circuit component thereof in a third semiconductor technology different from each of said first and second semiconductor technologies.

20. A method according to Claim 15, wherein said creating of said thermo-formed bonds is carried out in a manner so that each of said thermo-formed bonds is one of a thermosonic bond and a thermocompression bond.

21. A method according to Claim 15, including configuring said third circuit portion so that one said circuit component thereof has a fabrication yield which

is lower than a fabrication yield of each said circuit component of said first circuit portion.

22. A method according to Claim 21, including configuring said third circuit portion to have a single said circuit component which is a transistor.

23. A method according to Claim 15, wherein said providing of said first substrate includes selecting a semiconductor substrate to serve as said first substrate.

24. A method according to Claim 15,

wherein said providing of said first substrate includes selecting as said first substrate a material which includes one of silicon and gallium arsenide; and

wherein said providing of said second substrate includes selecting as said second substrate a material which includes gallium arsenide.